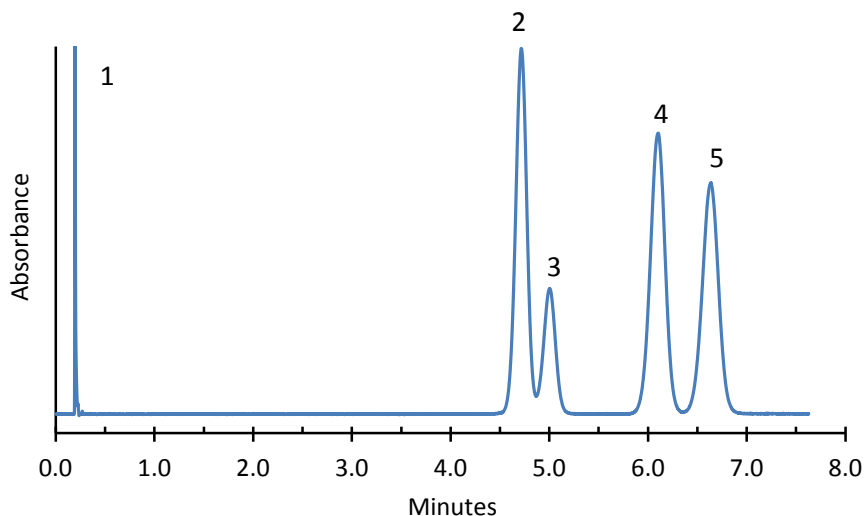


Application Note: 35-EX

Isocratic Separation of Dinitrotoluenes on HALO RP-Amide Phase



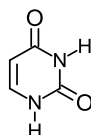
PEAK IDENTITIES:

1. Uracyl
2. 2,4-Dinitrotoluene
3. 2,6-Dinitrotoluene
4. 3,4-Dinitrotoluene
5. 2,3-Dinitrotoluene

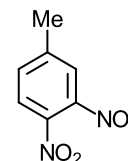
TEST CONDITIONS:

Column: 4.6 x 50 mm, HALO RP-Amide
 Part Number: 92814-407
 Mobile Phase: 80/20-Water/Acetonitrile
 Flow Rate: 2.5 mL/min.
 Pressure: 257 Bar
 Temperature: 27 °C
 Detection: UV 254 nm, VWD
 Injection Volume: 1.0 µL
 Sample Solvent: 50/50-Acetonitrile/Methanol
 Response Time: 0.02 sec.
 Flow Cell: 2.5 µL semi-micro
 LC System: Shimadzu Prominence UFLC XR
 Extra column volume: ~14 µL

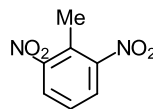
STRUCTURES:



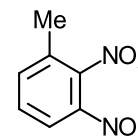
Uracyl



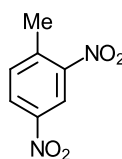
3,4-Dinitrotoluene



2,6-Dinitrotoluene



2,3-Dinitrotoluene



2,4-Dinitrotoluene

These dinitrotoluenes are difficult to separate, but can be separated with almost baseline resolution in under 7 minutes using a 50 mm long HALO Fused Core RP-Amide column.